

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

WE CLAIM:

1. A method of facilitating the provisioning of converged telecommunications services, comprising steps of:
  - accepting from an operator a first code supplied by a customer requesting at least one telecommunications service;
  - displaying to the operator a list of at least one telecommunications service-ready dwelling unit associated with the first code;
  - accepting a selection by the operator from the list of a dwelling unit in which the customer resides;
  - building a customer record using customer information input by the operator; and
  - automatically dispatching a work order to a technician selected to install customer premise equipment (CPE) in the dwelling unit.
2. The method as claimed in claim 1 wherein the step of accepting the first code further comprises steps of:
  - verifying that the first code is associated with at least one telecommunications service-ready dwelling unit;
  - verifying that there is equipment capacity to serve the customer at the at least one telecommunications service-ready dwelling unit; and
  - returning an error message if either of the verifications fails.

3. The method as claimed in claim 1 wherein the step of accepting the selection further comprises steps of:
  - verifying that there is equipment capacity to serve the customer at the dwelling unit selected; and
  - returning an error message if the equipment capacity does not exist.
4. The method as claimed in claim 1 wherein the step of building a customer record further comprises steps of:
  - inserting into the customer record, customer information including a customer name, address and telephone number entered by the operator;
  - inserting into the customer record an identifier of a service distribution equipment terminal address selected to serve the customer;
  - automatically selecting an available card and port of the service distribution terminal and inserting an identifier of each in the customer record.
5. The method as claimed in claim 4 wherein if the customer subscribes to an Internet service as a part of the converged service offering, the step of building a customer record further comprises steps of:
  - using at least a part of the customer information to retrieve from Internet Service Provider (ISP) equipment maintained by an ISP providing the Internet service, a customer User Identification and User Password assigned to the customer; and

inserting the Internet User Identification and User Password into the customer record.

6. The method as claimed in claim 1 further comprising steps of:

accepting a CPE installation date input by the operator in response to a request from the customer;

consulting a technician work schedule to confirm that a technician is available to perform a CPE installation on the CPE installation date; and

if a technician is not available on the requested CPE installation date, checking the technician work schedule for a date when a technician is available to perform the CPE installation, and displaying the date to the operator.

7. The method as claimed in claim 6 further comprising a step of consulting a technician skill set database in addition to consulting the technician work schedule, to ensure that an available technician possesses a skill set required to perform the CPE installation.

8. The method as claimed in claim 1 wherein the step of automatically dispatching a pending service request comprises steps of:

formulating an alphanumeric message respecting the CPE installation; and

sending the alphanumeric message to a communications device associated with the technician.

9. The method as claimed in claim 8 wherein the step of sending the alphanumeric message comprises a step of sending an alphanumeric message to an alphanumeric pager of the technician.
10. The method as claimed in claim 8 wherein the step of formulating the alphanumeric message comprises a step of formulating a message containing a service order number; customer name; customer phone number; and a date on which the technician is to perform the installation.
11. The method as claimed in claim 8 wherein the step of formulating the message further comprises a step of further including in the message a location of a service distribution terminal selected to provide service to the customer, and further inserting a terminal identifier that identifies the service distribution terminal selected to provide service to the customer.
12. The method as claimed in claim 1 further comprising steps of:

receiving a media access control identification (MAC ID) and serial number of the CPE, as well as a service distribution terminal address card and port number to which the CPE is

connected, after the technician installs and activates the CPE;

matching the service distribution terminal address card and port number with a service distribution terminal address card and port number stored in the customer record; and

recording the MAC ID and serial number of the CPE in the customer record.

13. A method as claimed in claim 12 further comprising steps of:

checking the MAC ID and serial number of the CPE against a list of MAC ID and serial number pairs associated with registered CPEs available for service use, and

if a match is not found in the list, formulating an alarm message and sending the alarm message to system administration.

14. A method as claimed in claim 13 wherein if a match is found the method further comprises a step of formulating a service enable message and forwarding the service enable message to a broadcast management system, which on receipt of the service enable message sends a barker channel signal to the CPE to verify to the technician that the CPE is correctly configured and connected to receive content from a video content provider.

15. A method as claimed in claim 14 further comprising steps of:

receiving confirmation from the technician that all requested telecommunications services have been enabled;

generating service completion reports to each service provider from which service was requested; and

forwarding the service completion reports to the respective service providers.

16. A system for facilitating the provisioning of telecommunications services and providing continuing service assurance, comprising:

at least one operator workstation for accepting input by an operator of data related to customer requests for telecommunications services; and

a server having a communications connection with service provision control systems operated by respective service providers that provide the telecommunications services, the server verifying information input by the operator, and automatically scheduling customer premise equipment (CPE) installation by a technician if the information is verified and service distribution equipment is available to be used to service the request.

17. The system as claimed in claim 16 wherein the workstation displays a data input template to facilitate the input of the data related to the customer requests for telecommunications services.

18. The system as claimed in claim 16 wherein the server is adapted to query a database containing a list of technicians available to perform service provisioning and service assurance, the database including an indication of a skill level of each of the technicians.
19. The system as claimed in claim 18 wherein the server is further adapted to query a technician scheduling application program to determine a work schedule of each technician to permit the server to automatically schedule a CPE installation date using technician skill levels retrieved from the database and technician availability retrieved from the scheduling application.
20. The system as claimed in claim 19 wherein the server is further adapted to return the CPE installation date to the operator work station to permit the operator to confirm that the installation date is acceptable to the customer, and to accept a response from the operator indicating whether the installation date is acceptable to the customer.
21. The system as claimed in claim 16 wherein the server is further adapted to automatically advise the technician of a CPE installation date.
22. The system as claimed in claim 21 wherein the server is adapted to advise the technician using an alphanumeric message sent to the technician via an alphanumeric paging system.



23. The system as claimed in claim 21 wherein the server is adapted to advise the technician using an electronic mail message sent to the technician via an electronic mail system.
24. The system as claimed in claim 16 wherein the server is further adapted to receive job status inputs from the technician, and to generate successful completion reports for completed jobs, and to reschedule uncompleted jobs.
25. The system as claimed in claim 16 wherein the server is further adapted to receive alarm messages from an element manager that monitors equipment used to deliver the telecommunications services, and further adapted to screen the alarm messages for alarm messages that warrant action by the server.
26. The system as claimed in claim 25 wherein the server is further adapted to use remote control functionality to correct element faults reported in the alarm messages that warrant action by the server.
27. The system as claimed in claim 26 wherein the server is further adapted to schedule a technician to correct element faults reported in the alarm messages if the alarm message indicates that remote control functionality cannot be used to correct the element fault, or remote control functionality fails to correct the element fault.
28. The system as claimed in claim 16 wherein the server is further adapted to receive an auto-discovery

message from a CPE that is powered on, and to use information in the auto-discovery message to determine whether the CPE is a registered unit approved for use in the system.

29. The system as claimed in claim 28 wherein the server is further adapted to update an inventory list when the CPE is determined to be a registered unit approved for use in the system.
30. The system as claimed in claim 29 wherein the server is further adapted to place an order for at least one more CPE when the updated inventory list indicates that a number of CPEs in inventory is less than a predetermined threshold.